

in the 1920's. Most of the slopes are very steep and are difficult and tiring going.

BAYNARDS MANOR HOUSE,
RUDGWICK, NR. HORSHAM,
SUSSEX, ENGLAND,
October 13, 1969.

JAMES L. H. WILLIAMS

2. TAXONOMIC NOTES ON THE SZECHWAN BURROWING SHREW, *ANOUROSOSEX SQUAMIPES* MILNE-EDWARDS, FROM INDIA

While studying a collection of soricids from Assam and NEFA, India, we have come across a good number of specimens of the Szechwan Burrowing Shrew from different localities. Detailed examination, shows that this shrew cannot be placed under *Anourosorex squamipes squamipes* Milne-Edwards to which, according to the extant literature, it should be included. An assessment of its taxonomic status was, therefore, felt necessary.

Blanford (1888) and Allen (1938) considered *A. assamensis* Anderson as a species distinct from *A. squamipes* Milne-Edwards. However, Ellerman & Morrison-Scott (1951) considered *Anourosorex* to be a monotypic genus with *A. squamipes* Milne-Edwards as the type-species having two subspecies, and without assigning any reason, synonymized *A. assamensis* Anderson with the nominate subspecies.

Examination of the material obtained from Assam and NEFA (32 examples of which measurements of 17 examples are given in Table 1) and critical evaluation of the characters of the population of south-eastern China, as given by Allen (1938), reveal the following facts :

The shrew from Assam, NEFA, is larger than that of south-eastern China. The former ranges from 85 to 114 mm. (mean 102.3 mm.) in head and body length, while the latter ranges from 80 to 85 mm. (mean 86.3 mm.). Allen states that the colour of the tail in the south-eastern Chinese population is dark brown, while in our Assam-NEFA material it is flesh coloured. Further, the claws are yellow (whether in dry or fresh specimens is not clear) in the former and generally white in the latter in fresh specimens. A small ochraceous tawny spot on the cheek is said to be usually present in the south-eastern Chinese shrew, but it is absent in our material. The skull is longer in Assam-NEFA shrew than that of the Chinese (greatest length 26.2 to 27.9 mm. mean 27.11 mm. v. 21.5 to 26.0 mm. mean 24.27 mm.).

Moreover, our examination of the adult female of the type-series of *A. assamensis*, a dry, mounted specimen, shows that the head and body

length of 80 mm. is larger than the measurements given by Anderson ($2.92'' = c. 74$ mm.). But its skull measurements come within the range of the material under study.

It would appear, therefore, that the populations of south-eastern China and Assam-NEFA are distinct from each other.

Thomas in his note to Wroughton (1916) is substantially correct in stating, '... while the Chin Hills shrew is the same as the Chinese one, the Assam one is different from both'.

Therefore, it seems necessary to resuscitate Anderson's *assamensis* for the Assam-NEFA shrew, which should now be known as *Anourosorex squamipes assamensis* Anderson.

Anourosorex squamipes yamashinai Kuroda, restricted to northern Formosa, can easily be separated from all other subspecies by its smaller tail, ranging from 9 to 13 mm. (Kuroda 1935).

Petter (1963) has described another subspecies, *Anourosorex squamipes schmidi* from Bomdila (2,700 m.), Kameng Frontier Division, NEFA, on the basis of one adult and two young specimens. The distinguishing character of this subspecies is the greatest length of the skull which is 30.5 mm. Since we have not seen any material of this form, we are unable to comment on its status.

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TABLE
EXTERNAL AND CRANIAL MEASUREMENTS IN MILLIMETRES OF *Anourosorex squamipes assamensis* ANDERSON

Coll. No. Reg. No.	Locality & Altitude	Collector	Date	Sex	External Measurements								Cranial Measurements					Remarks		
					Head and Body	Tail	Hind foot	Greatest length	Basal length	Palatal length	Breadth of brain case	Breadth across molars	Upper tooth row	Lower tooth row						
AM_25	Laban, Shil- long, Khasi Hills, Assam (c. 1430 m.)	Dr. A. K. Mandal	4 Mar. 1964	..	98	15	18	27.5	26.8	10.6	14.8	8.1	11.2	10.5						
AM 26	-do-	-do-	19 Jun. 1964	♂	94	14	18	27.8	26.0	10.8	15.3	8.8	11.5	11.0						
AM 27	-do-	-do-	28 Jun. 1964	♀	85	12	18	26.9	25.2	11.4	14.2	8.3	11.9	10.9						
16556	Jowai, Jaintia Hills, Assam (c. 1370 m).	H. W. Wells	13 Jun. 1920	♂	107	12.5	15.5	26.2	23.9	10.9	14.5	8.1	12	10.9						Weight 31 gm.
16557	-do-	-do-	30 Jun. 1920	♂	92	13.5	14.5	25.8	24.0	11.3	13.8	7.7	11.3	10.6						Weight 22.7 gm.
16558	-do-	-do-	6 Jul. 1920	♀	95	13	15	26.6	24.5	11.5	13.9	7.8	12.1	11						Weight 28.3 gm.; mammas 3 pairs inguinal.

16559	Shangpung, Jaintia Hills, Assam (c. 1220 m.)	-do-	6 Aug. 1920	♂	105	16	15	26.3	24.1	11.3	..	7.9	11.9	11
16550	-do-	-do-	7 Aug. 1920	♀	110	16	16	11.2	..	7.9	12	10.9
16561	Dening, Mishmi Hills, NEFA (c. 685 m.)	-do-	25 Mar. 1921	♀	106	14	16	27.5	25.4	11.6	14.7	8.5	13	11.9
16562	-do-	-do-	27 Mar. 1921	♀	114	14	16	27.5	25.9	11.7	14.6	8.2	12.5	11.4
16563	-do-	-do-	27 Mar. 1921	♂	105	14	16	27.5	25.5	11.7	14.5	8.4	11.6	10.6
16564	-do-	-do-	3 Apr. 1921	♂	112	14	16	26.5	24.7	11.5	14.5	7.9	12	11.4
16565	-do-	-do-	3 May 1921	♂	108	14	16	26.9	25.1	11.3	14.5	7.8	12.5	11.4
16566	Dreyi, Mishmi Hills, NEFA (c. 1565 m.)	-do-	28 May 1921	♀	107	19	17	27.4	25.4	12	14.8	9.3	12.6	11.4
16567	-do-	-do-	29 May 1921	♂	92	17.5	16	27.8	25.4	12.4	14.1	8.8	12.4	11.9
16568	-do-	-do-	10 Jun. 1921	♀	108	11	15	27.7	25.4	12.1	14.3	9.2	13.2	11.9
16569	-do-	-do-	10 Jun. 1921	♂	27.9	25.5	12	13.7	8.6	12.8	12

Weight
35 gm.,
mammas
pairs.

4 foetuses.

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3. BLACK JACKALS (*CANIS AUREUS* LINN.) IN KERALA

Prater says in his BOOK OF INDIAN ANIMALS (1965 : 126) that black jackals 'are not uncommon in north India'. I wonder whether melanism in the jackal has been reported at all from south India. Perusal of the last 15 years' issues of this *Journal* helped to reveal nothing more than that the jackal has been badly neglected by our naturalists ; I did not find a single note on this common animal. It may be of interest, therefore, to record some casual observations of a jackal pack found on the island of Dharmadam, Tellicherry taluk, which when first seen consisted of four adults : a black male, a grey female which was pregnant and two other grey animals one of which was a male. The pregnant female had cubs sometime late in March, 1969. Of the cubs one was an exact miniature of the black male.

Soon after my arrival at Dharmadam in the third week of October, 1968, the members of my family became deeply interested in a pair of jackals of which one was jet black with a thin white stripe down the centre of its chest. The other was a normal grey coloured female with a swollen belly and prominent teats. Occasionally these two were accompanied by two other normal jackals, with black only on the terminal two-thirds of their tails.

At first we thought that the black male, which looked larger than the three grey animals, was a village dog gone feral and living with the jackals. It not only looked larger and longer in the leg than the normal jackals, but had a tail which resembled an Alsatian's rather than the 'brush' of a jackal. But the animal reacted to the presence of dogs exactly as the normal jackals did ; and dogs chased it just as they did other jackals. Moreover, in the frequent 'concerts' that we heard, there was no sound suggesting the barking or howling of a dog. For a time I